

Free of ART
CL 33
COMPANNO

=> d his

(FILE 'HOME' ENTERED AT 09:16:15 ON 03 AUG 2005)

FILE 'HCAPLUS' ENTERED AT 09:16:40 ON 03 AUG 2005
L1 1 US2002147136/PN

FILE 'REGISTRY' ENTERED AT 09:17:15 ON 03 AUG 2005

FILE 'HCAPLUS' ENTERED AT 09:17:16 ON 03 AUG 2005
L2 TRA L1 1- RN : 103 TERMS

FILE 'REGISTRY' ENTERED AT 09:17:17 ON 03 AUG 2005
L3 103 SEA L2

FILE 'WPIX' ENTERED AT 09:17:21 ON 03 AUG 2005
L4 1 L1

=> b hcap

FILE 'HCAPLUS' ENTERED AT 09:17:47 ON 03 AUG 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 3 Aug 2005 VOL 143 ISS 6
FILE LAST UPDATED: 2 Aug 2005 (20050802/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all l1

L1 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:778699 HCAPLUS
DN 137:299916
ED Entered STN: 11 Oct 2002
TI Peptide-containing compounds for targeting cells expressing NP-1 receptor
IN Von Wronski, Mathew A.; Marinelli, Edmund R.; Nunn, Adrian D.; Pillai, Radhakrishna; Ramalingam, Kondareddiar; Tweedle, Michael F.; Linder, Karen; Nanjappan, Palaniappa; Raju, Natarajan
PA USA
SO U.S. Pat. Appl. Publ., 85 pp., Cont.-in-part of U.S. Ser. No. 585,364.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61K038-16
ICS A61K051-08
INCL 514008000
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 8, 34
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

PI US 2002147136 A1 20021010 US 2001-871974 20010604 <--
 PRAI US 2000-585364 A2 20000602
 CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002147136	ICM	A61K038-16
	ICS	A61K051-08
	INCL	514008000
US 2002147136	NCL	514/008.000; 514/021.000; 424/001.110
	ECLA	A61K047/48R2; A61K049/00P8; A61K049/22P8; A61K049/22P4; A61K049/22P16; A61K051/08Z <--

OS MARPAT 137:299916

AB The present invention provides compds. for targeting endothelial cells, tumor cells or other cells that express the neuropilin-1 (NP-1) receptor, compns. containing the same and methods for their use. The compds. are of the formula A-L-B (A = a monomer, multimer or polymer of TKPPR or analog which specifically binds to NP-1 or cells expressing NP-1 with avidity equal or greater than TKPPR; L = a lipid or a non-lipid (e.g., polymer) linker; B = a substrate). Addnl., the present invention includes diagnostic, therapeutic and radiotherapeutic compns. useful for visualization, therapy or radiotherapy. For example, DPPE-glutaroyl-Gly-Thr-Lys-Pro-Arg-OH (DPPE-Glu-GTKPPR) was prepared and formulated into gas-filled microbubble compns. for ultrasonic echog. The bubbles bind to human aortic endothelial cells (HAEC) under flow. The number of bubbles bound may increase with time for several minutes at a given flow rate, up to a flow rate producing 1.53 dynes/cm², while bubbles without the targeting moiety (DPPE-Glu-GTKPPR) may not bind. However, once bound under a lesser flow rate (e.g., 1.53 dynes/cm²), the shear stress on bubbles containing DPPE-Glu-GTKPPR may be increased to 6.1 dynes/cm² without dislodging many of the bound bubbles.

ST peptide neuropilin receptor endothelium tumor targeting; antitumor angiogenesis inhibitor peptide deriv prepn; gene therapy radiotherapy peptide deriv; ultrasound imaging endothelium neuropilin peptide

IT Fusion proteins (chimeric proteins)

RL: BSU (Biological study, unclassified); BIOL (Biological study) (KDR/Fc, binding to human aortic endothelial cells inhibition by; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (NP-1 (neuropilin-1); preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

IT Imaging agents

(acoustic imaging contrast agents; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

IT Imaging

Imaging agents

(acoustic; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

IT Artery

(aorta, endothelium, binding to; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

IT Endothelium

(aortic, binding to; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

IT Drug delivery systems

(beads; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

IT Diagnosis

Diagnosis

- (cancer; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Nucleic acids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(delivery of; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Angiogenesis
(detection; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Blood vessel
(endothelium; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Tumor necrosis factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(human aortic endothelial cells activated by; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Drug delivery systems
(kits; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Drug delivery systems
(liposomes; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Fluorescent substances
(markers; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Radionuclides, biological studies
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(markers; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Air
(microbubbles containing; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Alkenes, biological studies
Alkynes
Hydrocarbons, biological studies
Perfluorocarbons
Perfluorocarbons
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(microbubbles containing; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Drug delivery systems
(microbubbles; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Drug delivery systems
(microparticles; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Drug delivery systems
(microspheres, fluorescent, peptide-conjugated; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Peptides, preparation
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

- (oligopeptides; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Virus
(particles; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Angiogenesis inhibitors
Drug delivery systems
Drug screening
Gene therapy
Genetic vectors
Human
Imaging
Imaging agents
Radiopharmaceuticals
Radiotherapy
Reducing agents
Sound and Ultrasound
Viral vectors
(preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Phospholipids, reactions
Polymers, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Drug delivery systems
(suspensions, gas-filled microbubbles containing; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Vascular endothelial growth factor receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(type VEGFR-2, activated, inhibition of; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Endothelium
(vascular; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 9063-57-4, Tuftsin 127464-60-2, Vascular endothelial growth factor
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(binding to human aortic endothelial cells inhibition by; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 14133-76-7DP, Technetium 99, complexes with tetrapeptide conjugate, biological studies 470463-90-2DP, technetium 99 complexes
RL: DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(metastable; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 124-38-9, Carbon dioxide, biological studies 2551-62-4, Sulfur hexafluoride 7439-90-9, Krypton, biological studies 7440-37-1, Argon, biological studies 7440-63-3, Xenon, biological studies 7727-37-9, Nitrogen, biological studies 7782-44-7, Oxygen, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(microbubbles containing; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 214210-47-6, Neuropilin-1
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 377087-52-0P, BRU 305
RL: BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic

preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

IT 377087-53-1P, BRU 306
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

IT 377087-63-3P, BRU 317 377087-82-6P, BRU 239 377088-92-1P, BRU 337
 377088-93-2P, BRU 346 377725-24-1P, BRU 326 468726-69-4P
 468729-71-7P 470463-86-6P, BRU 292 470463-90-2P, BRU 363
 RL: DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

IT 100-46-9, Benzylamine, reactions 1155-64-2 1663-39-4, tert-Butyl acrylate 4530-20-5, Boc-glycine 5681-36-7, Dipalmitoylphosphatidylethanolamine 7672-27-7 15401-08-8 29022-11-5, Fmoc-glycine 33662-26-9 71989-26-9 71989-35-0 82911-69-1 106392-12-5, Poloxamer F 108 120791-76-6 129223-22-9 166108-71-0 167393-62-6 169543-81-1 198139-51-4 251450-64-3 283176-26-1 377087-81-5D, resin bound 377087-83-7D, resin-bound 470444-40-7, BRU 351
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

IT 4246-51-9P, 4,7,10-Trioxa-1,13-tridecanediamine 128988-04-5P
 150525-42-1P 377087-49-5P 377087-50-8P 377087-57-5P 377087-58-6P
 377087-59-7P 377087-60-0P 377087-62-2P 377087-64-4P 377087-65-5P
 377087-66-6P 377087-67-7P 377087-69-9P 377087-70-2P 377087-71-3P
 377087-72-4P 377087-73-5P 377087-74-6P 377087-76-8P 377087-77-9P
 377087-78-0P 377087-79-1P 377087-80-4P 377088-94-3P 468726-65-0P
 468726-66-1P 468726-68-3P 468726-70-7P 468726-71-8P 468726-73-0P
 468726-75-2DP, resin bound 468726-77-4DP, resin-bound 468729-73-9P
 468729-75-1P 468729-78-4P 470463-87-7P 470463-88-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

IT 41961-58-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

IT 10098-91-6, Yttrium 90, biological studies 13967-64-1, Dysprosium 165, biological studies 13967-65-2, Holmium 166, biological studies 13968-53-1, Ruthenium 103, biological studies 13981-25-4, Copper 64, biological studies 13982-36-0, Yttrium 88, biological studies 14119-09-6, Gallium 67, biological studies 14265-75-9, Lutetium 177, biological studies 14378-26-8, Rhenium 188, biological studies 14913-89-4, biological studies 14998-63-1, Rhenium 186, biological studies 15750-15-9, Indium 111, biological studies 15757-14-9, Gallium 68, biological studies 15758-35-7, Ruthenium 97, biological studies 15766-00-4, Samarium 153, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (preparation of radiolabeled peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

IT 42074-68-0 468726-76-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (resin-bound; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

=> b wpix

FILE 'WPIX' ENTERED AT 09:17:55 ON 03 AUG 2005
COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE LAST UPDATED: 2 AUG 2005 <20050802/UP>
MOST RECENT DERWENT UPDATE: 200549 <200549/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
PLEASE VISIT:
http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
<http://thomsonderwent.com/coverage/latestupdates/> <<<

>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER
GUIDES, PLEASE VISIT:
<http://thomsonderwent.com/support/userguides/> <<<

>>> NEW! FAST-ALERTING ACCESS TO NEWLY-PUBLISHED PATENT
DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX
FIRST VIEW - FILE WPIFV.
FOR FURTHER DETAILS: <http://www.thomsonderwent.com/dwpifv> <<<

>>> THE CPI AND EPI MANUAL CODES HAVE BEEN REVISED FROM UPDATE 200501.
PLEASE CHECK:
<http://thomsonderwent.com/support/dwpiref/reftools/classification/code-revision/>
FOR DETAILS. <<<

'BIX BI,ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

=> d all dcn drn l4

L4 ANSWER 1 OF 1 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2003-800817 [75] WPIX
CR 2002-195523 [25]
DNC C2003-221021
TI Composition used in targeting endothelial cells e.g. tumor cells comprises
compounds containing monomers, multimers or polymers of
L-arginine-L-threonyl-L-lysyl-L-prolyl-L-prolyl.
DC A96 B04 K08
IN LINDER, K; MARINELLI, E R; NANJAPPAN, P; NUNN, A D; PILLAI, R; RAJU, N;
RAMALINGAM, K; TWEEDLE, M F; VON WRONSKI, M A
PA (LIND-I) LINDER K; (MARI-I) MARINELLI E R; (NANJ-I) NANJAPPAN P; (NUNN-I)
NUNN A D; (PILL-I) PILLAI R; (RAJU-I) RAJU N; (RAMA-I) RAMALINGAM K;
(TWEI-I) TWEEDLE M F; (VWRO-I) VON WRONSKI M A
CYC 1
PI US 2002147136 A1 20021010 (200375)* 85 A61K038-16 <--
ADT US 2002147136 A1 CIP of US 2000-585364 20000602, US 2001-871974 20010604
PRAI US 2001-871974 20010604; US 2000-585364 20000602
IC ICM A61K038-16
ICS A61K051-08
AB US2002147136 A UPAB: 20031120
NOVELTY - Composition (A1) comprises compounds containing monomers,
multimers or polymers of L-arginine-L-threonyl-L-lysyl-L-prolyl-L-prolyl.
DETAILED DESCRIPTION - Composition (A1) comprises a compound
containing monomers, multimers or polymers of L-arginine-L-threonyl-L-
lysyl-L-prolyl-L-prolyl (TKPPR) of formula A-L-B1 (I).
A = monomer, multimer or polymer of TKPPR or its analogue that
specifically binds to NP-1 or cells that express NP-1 with avidity of at
least that of TKPPR;
L = a linker (preferably a group of formula (i));
X = NH, NR, O, S or SR;
m = 0-2;
n = 0-4;

R = H or 1-4C alkyl (optionally substituted by at least one OH), and
B1 = a substrate.

INDEPENDENT CLAIMS are also included for:

- (1) a compound of formula A-L-B1a (II) and A-L-B3 (III) for use in targeting endothelial cells, tumor cells or other cells;
 - (2) an ultrasound contrast agent (c1) comprising a suspension of gas filled microbubbles comprising (II);
 - (3) an ultrasound contrast agent (c2) comprising a suspension of gas filled microballoons comprising (III);
 - (4) preparation of (I) which comprises conjugating the monomer, multimer or polymer of TKPRR or its analogue with a linker to obtain a compound of formula A-L (IV), forming a covalent or non-covalent bond between (IV) and the substrate B1 or forming a covalent bond between B1 and the linker to form a conjugate B-L followed by conjugation with the monomer, and
 - (5) a kit for preparing a radiopharmaceutical comprising (A1).
- B1a = a phospholipid group of formula (ii);
M = alkaline or alkaline earth metal cation;
R1, R2 = 12-20C linear chain optionally interrupted by CO or O, and
X2 = H, CH₂CH₂NH₂, CH₂CH(NH₃⁺)-COO-, CH₂CH(OH)CH₂OH or a group of formula (iii).

ACTIVITY - Cytostatic; Antiangiogenetic.

MECHANISM OF ACTION - Vascular endothelial growth factor binding receptor transmembrane glycoprotein (NP-1) binder.

USE - Used for targeting endothelial cells, tumor cells or other cells which express NP-1, for inhibiting angiogenesis, for ultrasound imaging, staging a tumor, screening at least one targeted ultrasound contrast agent for the ability to target endothelial cells, tumor cells or other cells which express NP-1, for the therapeutic delivery in vivo of a bioactive agent and for delivering desired nucleic acids to endothelial cells, tumor cells or other cells which express NP-1 (all claimed). The composition is also useful for visualization therapy or radiotherapy of endothelial cells.

ADVANTAGE - (A1) can be used with or without a detectable moiety for any of the imaging modalities.

Dwg. 0/4

FS
FA
MC

CPI
AB; GI; DCN
CPI: A12-V01; A12-V03C2; B01-D02; B03-H; B04-B01B; B04-C01A; B04-C02;
B04-C03; B04-D01; B04-J02; B05-A03B; B05-A04; B05-B01P; B05-B02C;
B05-C08; B10-A07; B10-B02J; B10-B04B; B10-C02; B10-H02B; B12-K04C1;
B14-F01D; B14-H01; K08-X; K09-B; K09-E
M1 *31* DCN: 0097-34702-T; 0097-34702-M; 0097-34702-N
M1 *32* DCN: 0097-34701-T; 0097-34701-M; 0097-34701-N
M1 *37* DCN: RA01EA-K; RA01EA-T; RA01EA-Q; RA01EA-M
M1 *38* DCN: R16461-K; R16461-T; R16461-Q; R16461-M
M1 *39* DCN: RA0120-K; RA0120-T; RA0120-Q; RA0120-M
M1 *40* DCN: RA01IK-K; RA01IK-T; RA01IK-Q; RA01IK-M
M1 *41* DCN: RA01PM-K; RA01PM-T; RA01PM-Q; RA01PM-M
M1 *42* DCN: RA00I9-K; RA00I9-T; RA00I9-Q; RA00I9-M
M1 *43* DCN: RA0121-K; RA0121-T; RA0121-Q; RA0121-M
M1 *44* DCN: RA04V6-K; RA04V6-T; RA04V6-Q; RA04V6-M
M1 *45* DCN: RA0120-K; RA0120-T; RA0120-Q; RA0120-M
M1 *46* DCN: RAAXLX-K; RAAXLX-T; RAAXLX-Q; RAAXLX-M
M1 *47* DCN: 0097-34703-K; 0097-34703-T; 0097-34703-Q; 0097-34703-M;
0097-34703-P
M2 *01* DCN: RA04F6-K; RA04F6-T; RA04F6-Q; RA04F6-M
M2 *02* DCN: R06891-K; R06891-T; R06891-Q; R06891-M
M2 *03* DCN: R07812-K; R07812-T; R07812-Q; R07812-M
M2 *04* DCN: R09617-K; R09617-T; R09617-Q; R09617-M; R10728-K; R10728-T;
R10728-Q; R10728-M
M2 *05* DCN: R01065-K; R01065-T; R01065-Q; R01065-M
M2 *06* DCN: RA0ICL-K; RA0ICL-T; RA0ICL-Q; RA0ICL-M
M2 *07* DCN: RA11FY-K; RA11FY-T; RA11FY-Q; RA11FY-M
M2 *08* DCN: RA1AGG-K; RA1AGG-T; RA1AGG-Q; RA1AGG-M
M2 *09* DCN: RA0K4Y-K; RA0K4Y-T; RA0K4Y-Q; RA0K4Y-M

M2 *10* DCN: R00104-K; R00104-T; R00104-Q; R00104-M; R04091-K; R04091-T;
R04091-Q; R04091-M; R13229-K; R13229-T; R13229-Q; R13229-M
M2 *11* DCN: R00116-K; R00116-T; R00116-Q; R00116-M; R04750-K; R04750-T;
R04750-Q; R04750-M
M2 *12* DCN: R00114-K; R00114-T; R00114-Q; R00114-M; R04738-K; R04738-T;
R04738-Q; R04738-M
M2 *13* DCN: R00100-K; R00100-T; R00100-Q; R00100-M; R17997-K; R17997-T;
R17997-Q; R17997-M
M2 *14* DCN: R06639-K; R06639-T; R06639-Q; R06639-M
M2 *15* DCN: R00900-K; R00900-T; R00900-Q; R00900-M; R07861-K; R07861-T;
R07861-Q; R07861-M
M2 *16* DCN: R01137-K; R01137-T; R01137-Q; R01137-M; R12109-K; R12109-T;
R12109-Q; R12109-M
M2 *17* DCN: R01152-K; R01152-T; R01152-Q; R01152-M; R07021-K; R07021-T;
R07021-Q; R07021-M
M2 *18* DCN: R08480-K; R08480-T; R08480-Q; R08480-M
M2 *19* DCN: R10312-K; R10312-T; R10312-Q; R10312-M
M2 *20* DCN: R10313-K; R10313-T; R10313-Q; R10313-M
M2 *21* DCN: R16329-K; R16329-T; R16329-Q; R16329-M
M2 *22* DCN: R16328-K; R16328-T; R16328-Q; R16328-M
M2 *23* DCN: R01738-K; R01738-T; R01738-Q; R01738-M
M2 *24* DCN: R01779-K; R01779-T; R01779-Q; R01779-M
M2 *25* DCN: R03186-K; R03186-T; R03186-Q; R03186-M
M2 *26* DCN: R03134-K; R03134-T; R03134-Q; R03134-M
M2 *27* DCN: R03133-K; R03133-T; R03133-Q; R03133-M
M2 *28* DCN: RAOXPN-K; RAOXPN-T; RAOXPN-Q; RAOXPN-M
M2 *29* DCN: R18066-K; R18066-T; R18066-Q; R18066-M
M2 *30* DCN: RAAXL7-K; RAAXL7-T; RAAXL7-Q; RAAXL7-M
M5 *33* DCN: R11954-K; R11954-T; R11954-Q; R11954-M
M5 *34* DCN: R13257-K; R13257-T; R13257-Q; R13257-M
M5 *35* DCN: R00148-K; R00148-T; R00148-Q; R00148-M
M5 *36* DCN: RAAXKP-K; RAAXKP-T; RAAXKP-Q; RAAXKP-M
DRN 0100-S; 0100-U; 0104-S; 0104-U; 0114-S; 0114-U; 0116-S; 0116-U; 0148-S;
0148-U; 0900-S; 0900-U; 1065-S; 1065-U; 1137-S; 1137-U; 1152-S; 1152-U;
1738-S; 1738-U; 1779-S; 1779-U

=> b home

FILE 'HOME' ENTERED AT 09:18:08 ON 03 AUG 2005

=>

=> b reg

FILE 'REGISTRY' ENTERED AT 09:23:58 ON 03 AUG 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 2 AUG 2005 HIGHEST RN 857941-82-3
DICTIONARY FILE UPDATES: 2 AUG 2005 HIGHEST RN 857941-82-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS
for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

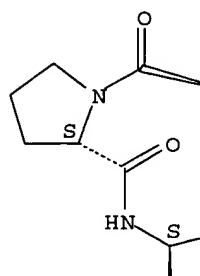
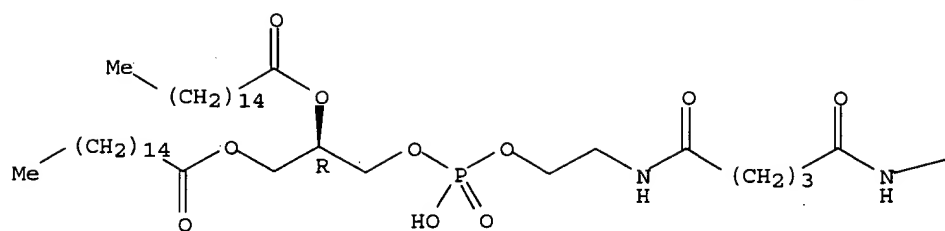
=> d ide l6 tot

L6 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2005 ACS on STN
RN 468726-69-4 REGISTRY
ED Entered STN: 01 Nov 2002
CN L-Arginine, N-[(13R)-10-hydroxy-10-oxido-1,5,16-trioxo-13-[(1-
oxohexadecyl)oxy]-9,11,15-trioxa-6-aza-10-phosphahentriacont-1-yl]glycyl-L-
threonyl-L-lysyl-L-prolyl-L-prolyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C70 H128 N11 O18 P
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

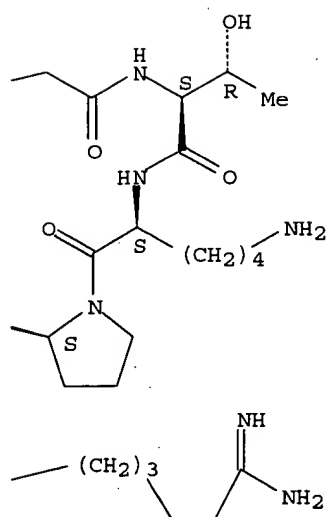
RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PAGE 2-A



PAGE 2-B



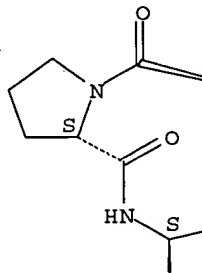
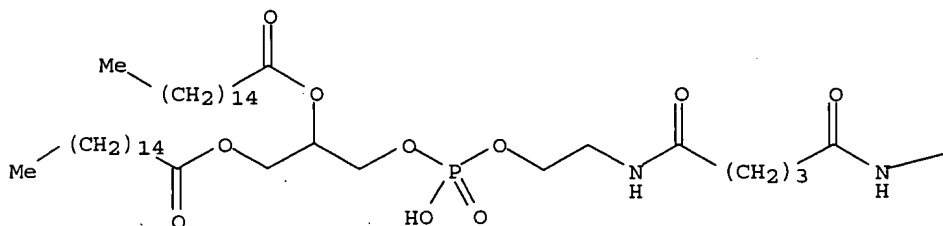
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2005 ACS on STN
RN 377087-37-1 REGISTRY
ED Entered STN: 20 Dec 2001
CN L-Arginine, N-[10-hydroxy-10-oxido-1,5,16-trioxo-13-[(1-oxohexadecyl)oxy]-
9,11,15-trioxa-6-aza-10-phosphahentriacont-1-yl]glycyl-L-threonyl-L-lysyl-
L-prolyl-L-prolyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C70 H128 N11 O18 P
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

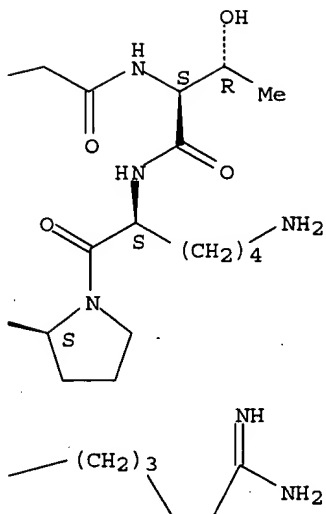
RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PAGE 2-A



PAGE 2-B



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d his

(FILE 'HOME' ENTERED AT 09:16:15 ON 03 AUG 2005)

FILE 'HCAPLUS' ENTERED AT 09:16:40 ON 03 AUG 2005
 L1 1 US2002147136/PN

FILE 'REGISTRY' ENTERED AT 09:17:15 ON 03 AUG 2005

FILE 'HCAPLUS' ENTERED AT 09:17:16 ON 03 AUG 2005
 L2 TRA L1 1- RN : 103 TERMS

FILE 'REGISTRY' ENTERED AT 09:17:17 ON 03 AUG 2005
 L3 103 SEA L2

FILE 'WPIX' ENTERED AT 09:17:21 ON 03 AUG 2005
 L4 1 L1

Search done by Noble Jarrell

FILE 'REGISTRY' ENTERED AT 09:18:43 ON 03 AUG 2005
L5 3 L3 AND O>=18 AND P/ELS AND NC4/ES
L6 2 C70H128N11O18P

FILE 'HCAPLUS' ENTERED AT 09:24:13 ON 03 AUG 2005
L7 2 L6

FILE 'EMBASE' ENTERED AT 09:24:28 ON 03 AUG 2005
L8 0 L6

FILE 'MEDLINE' ENTERED AT 09:24:37 ON 03 AUG 2005
L9 0 L6

FILE 'BIOSIS' ENTERED AT 09:24:42 ON 03 AUG 2005
L10 0 L6

FILE 'HCAOLD' ENTERED AT 09:24:47 ON 03 AUG 2005
L11 0 L6

FILE 'USPATFULL, USPAT2' ENTERED AT 09:25:03 ON 03 AUG 2005
L12 1 L6

FILE 'WPIX' ENTERED AT 09:31:08 ON 03 AUG 2005
L13 1 C70 H128 N11 O18 P/MF
SEL SDCN L13
L14 1 E1/DCN

=> b hcap

FILE 'HCAPLUS' ENTERED AT 09:34:03 ON 03 AUG 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 3 Aug 2005 VOL 143 ISS 6
FILE LAST UPDATED: 2 Aug 2005 (20050802/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all hitrn 17 tot

L7 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:778699 HCAPLUS
DN 137:299916
ED Entered STN: 11 Oct 2002
TI Peptide-containing compounds for targeting cells expressing NP-1 receptor
IN Von Wronski, Mathew A.; Marinelli, Edmund R.; Nunn, Adrian D.; Pillai, Radhakrishna; Ramalingam, Kondareddiar; Tweedle, Michael F.; Linder, Karen; Nanjappan, Palaniappa; Raju, Natarajan
PA USA
SO U.S. Pat. Appl. Publ., 85 pp., Cont.-in-part of U.S. Ser. No. 585,364.
CODEN: USXXCO

Search done by Noble Jarrell

DT Patent
 LA English
 IC ICM A61K038-16
 ICS A61K051-08
 INCL 514008000
 CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 1, 8, 34

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002147136	A1	20021010	US 2001-871974	20010604
PRAI	US 2000-585364	A2	20000602		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002147136	ICM	A61K038-16
	ICS	A61K051-08
	INCL	514008000
US 2002147136	NCL	514/008.000; 514/021.000; 424/001.110
	ECLA	A61K047/48R2; A61K049/00P8; A61K049/22P8; A61K049/22P4; A61K049/22P16; A61K051/08Z

OS MARPAT 137:299916

AB. The present invention provides compds. for targeting endothelial cells, tumor cells or other cells that express the neuropilin-1 (NP-1) receptor, compns. containing the same and methods for their use. The compds. are of the formula A-L-B (A = a monomer, multimer or polymer of TKPPR or analog which specifically binds to NP-1 or cells expressing NP-1 with avidity equal or greater than TKPPR; L = a lipid or a non-lipid (e.g., polymer) linker; B = a substrate). Addnl., the present invention includes diagnostic, therapeutic and radiotherapeutic compns. useful for visualization, therapy or radiotherapy. For example, DPPE-glutaroyl-Gly-Thr-Lys-Pro-Pro-Arg-OH (DPPE-Glu-GTKPPR) was prepared and formulated into gas-filled microbubble compns. for ultrasonic echog. The bubbles bind to human aortic endothelial cells (HAEC) under flow. The number of bubbles bound may increase with time for several minutes at a given flow rate, up to a flow rate producing 1.53 dynes/cm², while bubbles without the targeting moiety (DPPE-Glu-GTKPPR) may not bind. However, once bound under a lesser flow rate (e.g., 1.53 dynes/cm²), the shear stress on bubbles containing DPPE-Glu-GTKPPR may be increased to 6.1 dynes/cm² without dislodging many of the bound bubbles.

ST peptide neuropilin receptor endothelium tumor targeting; antitumor angiogenesis inhibitor peptide deriv prepn; gene therapy radiotherapy peptide deriv; ultrasound imaging endothelium neuropilin peptide

IT Fusion proteins (chimeric proteins)

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (KDR/Fc, binding to human aortic endothelial cells inhibition by;
 preparation of peptide-containing compds. and compns. for targeting cells
 expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (NP-1 (neuropilin-1); preparation of peptide-containing compds. and compns. for
 targeting cells expressing neuropilin-1 receptor for diagnosis,
 imaging, and therapy)

IT Imaging agents

(acoustic imaging contrast agents; preparation of peptide-containing compds. and
 compns. for targeting cells expressing neuropilin-1 receptor for
 diagnosis, imaging, and therapy)

IT Imaging

Imaging agents

(acoustic; preparation of peptide-containing compds. and compns. for targeting
 cells expressing neuropilin-1 receptor for diagnosis, imaging, and
 therapy)

IT Artery

(aorta, endothelium, binding to; preparation of peptide-containing compds. and
 compns. for targeting cells expressing neuropilin-1 receptor for
 diagnosis, imaging, and therapy)

- IT Endothelium
(aortic, binding to; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Drug delivery systems
(beads; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Diagnosis
Diagnosis
(cancer; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Nucleic acids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(delivery of; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Angiogenesis
(detection; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Blood vessel
(endothelium; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Tumor necrosis factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(human aortic endothelial cells activated by; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Drug delivery systems
(kits; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Drug delivery systems
(liposomes; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Fluorescent substances
(markers; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Radionuclides, biological studies
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(markers; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Air
(microbubbles containing; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Alkenes, biological studies
Alkynes
Hydrocarbons, biological studies
Perfluorocarbons
Perfluorocarbons
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(microbubbles containing; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Drug delivery systems
(microbubbles; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Drug delivery systems

- (microparticles; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Drug delivery systems
(microspheres, fluorescent, peptide-conjugated; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Peptides, preparation
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(oligopeptides; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Virus
(particles; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Angiogenesis inhibitors
Drug delivery systems
Drug screening
Gene therapy
Genetic vectors
Human
Imaging
Imaging agents
Radiopharmaceuticals
Radiotherapy
Reducing agents
Sound and Ultrasound
Viral vectors
(preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Phospholipids, reactions
Polymers, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Drug delivery systems
(suspensions, gas-filled microbubbles containing; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Vascular endothelial growth factor receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(type VEGFR-2, activated, inhibition of; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT Endothelium
(vascular; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 9063-57-4, Tuftsin 127464-60-2, Vascular endothelial growth factor
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(binding to human aortic endothelial cells inhibition by; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 14133-76-7DP, Technetium 99, complexes with tetrapeptide conjugate, biological studies 470463-90-2DP, technetium 99 complexes
RL: DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(metastable; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 124-38-9, Carbon dioxide, biological studies 2551-62-4, Sulfur hexafluoride 7439-90-9, Krypton, biological studies 7440-37-1, Argon, biological studies 7440-63-3, Xenon, biological studies 7727-37-9, Nitrogen, biological studies 7782-44-7, Oxygen, biological studies

- RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(microbubbles containing; preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 214210-47-6, Neuropilin-1
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 377087-52-0P, BRU 305
RL: BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 377087-53-1P, BRU 306
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 377087-63-3P, BRU 317 377087-82-6P, BRU 239 377088-92-1P, BRU 337
377088-93-2P, BRU 346 377725-24-1P, BRU 326 468726-69-4P
468729-71-7P 470463-86-6P, BRU 292 470463-90-2P, BRU 363
RL: DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 100-46-9, Benzylamine, reactions 1155-64-2 1663-39-4, tert-Butyl acrylate 4530-20-5, Boc-glycine 5681-36-7, Dipalmitoylphosphatidylethanolamine 7672-27-7 15401-08-8 29022-11-5, Fmoc-glycine 33662-26-9 71989-26-9 71989-35-0 82911-69-1 106392-12-5, Poloxamer F 108 120791-76-6 129223-22-9 166108-71-0 167393-62-6 169543-81-1 198139-51-4 251450-64-3 283176-26-1 377087-81-5D, resin bound 377087-83-7D, resin-bound 470444-40-7, BRU 351
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 4246-51-9P, 4,7,10-Trioxo-1,13-tridecanediamine 128988-04-5P
150525-42-1P 377087-49-5P 377087-50-8P 377087-57-5P 377087-58-6P
377087-59-7P 377087-60-0P 377087-62-2P 377087-64-4P 377087-65-5P
377087-66-6P 377087-67-7P 377087-69-9P 377087-70-2P 377087-71-3P
377087-72-4P 377087-73-5P 377087-74-6P 377087-76-8P 377087-77-9P
377087-78-0P 377087-79-1P 377087-80-4P 377088-94-3P 468726-65-0P
468726-66-1P 468726-68-3P 468726-70-7P 468726-71-8P 468726-73-0P
468726-75-2DP, resin bound 468726-77-4DP, resin-bound 468729-73-9P
468729-75-1P 468729-78-4P 470463-87-7P 470463-88-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 41961-58-4P
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of peptide-containing compds. and compns. for targeting cells expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)
- IT 10098-91-6, Yttrium 90, biological studies 13967-64-1, Dysprosium 165, biological studies 13967-65-2, Holmium 166, biological studies 13968-53-1, Ruthenium 103, biological studies 13981-25-4, Copper 64, biological studies 13982-36-0, Yttrium 88, biological studies 14119-09-6, Gallium 67, biological studies 14265-75-9, Lutetium 177, biological studies 14378-26-8, Rhenium 188, biological studies 14913-89-4, biological studies 14998-63-1, Rhenium 186, biological studies 15750-15-9, Indium 111, biological studies 15757-14-9, Gallium 68, biological studies 15758-35-7, Ruthenium 97, biological studies 15766-00-4, Samarium 153, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of radiolabeled peptide-containing compds. and compns. for
targeting cells expressing neuropilin-1 receptor for diagnosis,
imaging, and therapy)

IT 42074-68-0 468726-76-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(resin-bound; preparation of peptide-containing compds. and compns. for
targeting cells expressing neuropilin-1 receptor for diagnosis,
imaging, and therapy)

IT 468726-69-4P

RL: DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic
use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of peptide-containing compds. and compns. for targeting cells
expressing neuropilin-1 receptor for diagnosis, imaging, and therapy)

L7 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:885834 HCAPLUS

DN 136:25104

ED Entered STN: 07 Dec 2001

TI Peptide-containing compounds for targeting endothelial cells, compositions
containing the same and methods for their use

IN Von Wronski, Mathew A.; Marinelli, Edmund R.; Nunn, Adrian D.; Pillai,
Radhakrishna; Ramalingam, Kondareddiar; Tweedle, Michael F.; Linder,
Karen; Nanjappan, Palaniappa; Raju, Natarajan

PA Bracco Research USA, USA

SO PCT Int. Appl., 146 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K051-00

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 8, 9, 34, 35

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001091805	A2	20011206	WO 2001-US18053	20010604
	WO 2001091805	A3	20020906		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	CA 2410887	AA	20011206	CA 2001-2410887	20010604
	EP 1289565	A2	20030312	EP 2001-944270	20010604
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	JP 2004500854	T2	20040115	JP 2001-587817	20010604
PRAI	US 2000-585364	A2	20000602		
	WO 2001-US18053	W	20010604		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001091805	ICM	A61K051-00
WO 2001091805	ECLA	A61K047/48R2; A61K049/00P8; A61K049/22P4; A61K049/22P8; A61K049/22P16; A61K051/08Z
JP 2004500854	FTERM	4B024/AA01; 4B024/AA20; 4B024/CA02; 4B024/DA02; 4B024/DA03; 4B024/GA11; 4B024/HA17; 4B063/QA05; 4B063/QQ21; 4B063/QQ41; 4B063/QQ61; 4B063/QQ89; 4B063/QQ91; 4B063/QR51; 4B063/QR59; 4B063/QR77; 4B063/QS31; 4B063/QS36; 4B063/QS39; 4B063/QX01; 4B063/QX10; 4B065/AA90X; 4B065/AA93X; 4B065/AB01; 4B065/AB10; 4B065/AC14; 4B065/BA02; 4B065/BA30;

4B065/CA24; 4B065/CA43; 4B065/CA44; 4B065/CA46;
 4C076/CC27; 4C076/DD41; 4C076/DD44; 4C076/DD45;
 4C076/DD46; 4C076/DD51; 4C076/DD52; 4C076/DD59;
 4C076/DD63; 4C076/DD68; 4C076/DD69; 4C076/DD70;
 4C076/EE06; 4C076/EE30; 4C076/EE59; 4C084/AA02;
 4C084/AA12; 4C084/BA17; 4C084/BA18; 4C084/BA42;
 4C084/DA03; 4C084/NA14; 4C084/ZB26; 4H045/AA10;
 4H045/AA20; 4H045/BA13; 4H045/BA50; 4H045/BA55;
 4H045/EA20; 4H045/EA50; 4H045/FA31; 4H045/FA41;
 4H045/FA50; 4H045/FA58

OS MARPAT 136:25104

AB The present invention provides compds. for targeting endothelial cells, tumor cells or other cells that express the neuropilin-1 (NP-1) receptor, compns. containing the same and methods for their use. The compds. are of the formula A-L-B (A = TKPPR or analog which specifically binds to an endothelial cell or cells that express markers in common with endothelial cells, with equal or greater avidity as TKPPR; L = a lipid or a non-lipid (polymer) linker; B = a substrate). Addnl., the present invention includes diagnostic, therapeutic and radiotherapeutic compns. useful for visualization, therapy or radiotherapy. For example, DPPE-glutaroyl-Gly-Thr-Lys-Pro-Pro-Arg-OH (DPPE-Glu-GTKPPR) was prepared and formulated into gas-filled microbubble compns. for ultrasonic echog. The bubbles interact with a VEGF receptor on human aortic endothelial cells (HAEC), possibly with KDR receptor, or more likely with NP-1 receptor which binds to KDR.

ST peptide neuropilin receptor endothelium targeting diagnosis therapy; antitumor angiogenesis inhibitor peptide deriv prepn; gene therapy radiotherapy peptide deriv; ultrasound imaging endothelium neuropilin peptide

IT Imaging agents
 (acoustic imaging contrast agents; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)

IT Imaging
 (acoustic; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)

IT Artery
 (aorta, endothelium; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)

IT Endothelium
 (aortic; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)

IT Drug delivery systems
 (beads; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)

IT Diagnosis
 Diagnosis
 (cancer; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)

IT Antitumor agents
 (carcinoma, epidermoid; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)

IT Polyoxyalkylenes, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (derivs.; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)

IT Angiogenesis
 (detection; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)

- IT Diglycerides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(digalactosyl; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Cell activation
(endothelial; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Blood vessel
Blood vessel
(endothelium; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Fatty acids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(esters, with lipids; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Sterols
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(esters, with sugar acids; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Lipids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ether-linked, with fatty acids; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Vascular endothelial growth factor receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(interaction with; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Drug delivery systems
(liposomes; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Alcohols, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(long-chain; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Fluorescent substances
(markers; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Radionuclides, biological studies
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(markers; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Drug delivery systems
(microbubbles, gas-filled; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Drug delivery systems
(microspheres; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Liposomes
Surfactants
(nonionic; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)

- IT Peptides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oligopeptides; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Phosphoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(phosphotyrosine-containing, phosphorylation; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Air
Angiogenesis inhibitors
Animal
Antitumor agents
Diagnosis
Drug delivery systems
Drug delivery systems
Gene therapy
Genetic vectors
Human
Imaging
Imaging agents
Radiopharmaceuticals
Radiotherapy
Reducing agents
Retroviral vectors
Sound and Ultrasound
Viral vectors
(preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Alkenes, biological studies
Alkynes
Cardiolipins
Ceramides
Fatty acids, biological studies
Glycolipids
Glycosphingolipids
Hydrocarbons, biological studies
Lipids, biological studies
Lipopolysaccharides
Lysophospholipids
Nucleic acids
Perfluorocarbons
Perfluorocarbons
Phosphatidic acids
Phosphatidylinositols
Phospholipids, biological studies
Polymers, biological studies
Saponins
Sphingolipids
Sulfatides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Phosphorylation, biological
(protein, protein tyrosines; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Carbohydrates, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sugar esters, with aliphatic acids; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Drug delivery systems
(suspensions; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for

- diagnosis and therapy)
- IT Vascular endothelial growth factor receptors
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (type VEGFR-2, interaction with; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT Endothelium
 Endothelium
 (vascular; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT 127464-60-2, Vascular endothelial growth factor
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (binding to neuropilin-1 and KDR receptors; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT 14133-76-7DP, Technetium 99, complexes with tetrapeptide conjugate, biological studies
 RL: DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (metastable; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT 56-12-2, γ -Aminobutyric acid, biological studies 56-40-6, Glycine, biological studies 56-84-8, L-Aspartic acid, biological studies 56-86-0, L-Glutamic acid, biological studies 1197-18-8, trans-4-Aminomethylcyclohexanecarboxylic acid 9063-57-4, Tuftsin 214210-47-6, Neuropilin-1
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT 41961-58-4DP, conjugates with red fluorescent carboxylate-modified FluoSphere 145018-54-8DP, FluoSphere, red fluorescent carboxylate-modified, conjugates with peptide
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT 41961-58-4P
 RL: BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT 377087-37-1P 377087-53-1P 377087-54-2P 377087-63-3P 377087-82-6P 377088-92-1P 377088-93-2P 377725-24-1P 377725-30-9P
 RL: DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT 56-87-1, L-Lysine, reactions 72-19-5, L-Threonine, reactions 108-55-4, Glutaric anhydride 1155-64-2 1663-39-4, tert-Butyl acrylate 2149-70-4 4530-20-5 7672-27-7 15260-10-3 15401-08-8 15401-08-8 29022-11-5 71989-26-9 71989-35-0 129223-22-9 135821-02-2 166108-71-0 167393-62-6 169543-81-1 195136-58-4 377087-58-6 377087-61-1 377087-81-5 377087-84-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)
- IT 128988-04-5P 198139-51-4P 377087-43-9P 377087-44-0P 377087-45-1P 377087-46-2P 377087-47-3P 377087-48-4P 377087-49-5P 377087-50-8P 377087-51-9P 377087-52-0P 377087-55-3P 377087-56-4P 377087-57-5P 377087-59-7P 377087-60-0P 377087-62-2P 377087-64-4P 377087-65-5P 377087-66-6P 377087-67-7P 377087-68-8P 377087-69-9P 377087-70-2P 377087-71-3P 377087-72-4P 377087-73-5P 377087-74-6P 377087-75-7P

377087-76-8P 377087-77-9P 377087-78-0P 377087-79-1P 377087-80-4P

377088-94-3P 377725-26-3P 377725-28-5P 377725-29-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)

IT 2462-63-7 5681-36-7, Dipalmitoylphosphatidylethanolamine 106392-12-5, Ethylene oxide-propylene oxide block copolymer

RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)

IT 56-81-5, Glycerol, biological studies 56-81-5D, Glycerol, esters 57-88-5, Cholesterol, biological studies 110-15-6, Succinic acid, biological studies 110-94-1, Glutaric acid 124-30-1, Stearylamine 124-38-9, Carbon dioxide, biological studies 141-82-2, Malonic acid, biological studies 144-62-7, Oxalic acid, biological studies 538-24-9, Glycerol trilaurate 1256-86-6, Cholesterol sulfate 1510-21-0, Cholesterol hemisuccinate 2197-63-9, Dicityl phosphate 2551-62-4, Sulfur hexafluoride 3614-36-6, Diacetyl phosphate 4345-03-3 4537-76-2, Distearoylphosphatidylethanolamine 7439-90-9, Krypton, biological studies 7440-37-1, Argon, biological studies 7440-63-3, Xenon, biological studies 7727-37-9, Nitrogen, biological studies 7782-44-7, Oxygen, biological studies 9002-89-5, Polyvinyl alcohol 9004-54-0D, Dextran, derivs. 10098-91-6, Yttrium-90, biological studies 13967-64-1, Dysprosium-165, biological studies 13967-65-2, Holmium-166, biological studies 13968-53-1, Ruthenium-103, biological studies 13981-25-4, Copper-64, biological studies 13982-36-0, Yttrium-88, biological studies 14119-09-6, Gallium-67, biological studies 14133-76-7, Technetium-99, biological studies 14265-75-9, Lutetium-177, biological studies 14378-26-8, Rhenium-188, biological studies 14913-89-4, biological studies 14998-63-1, Rhenium-186, biological studies 15750-15-9, Indium-111, biological studies 15757-14-9, Gallium-68, biological studies 15758-35-7, Ruthenium-97, biological studies 15766-00-4, Samarium-153, biological studies 20255-95-2, Dimyristoylphosphatidylethanolamine 24529-88-2 25322-68-3D, Polyethylene glycol, derivs. 26657-95-4, Glycerol dipalmitate 27638-00-2, Glycerol dilaurate 55252-82-9 68354-92-7 73294-85-6 76822-97-4 78543-25-6, 1-Hexadecyl-2-palmitoylglycerophosphoethanolamine 83554-62-5 87136-19-4 108032-13-9 161293-59-0 161441-83-4 186198-32-3 377088-91-0

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)

IT 4246-51-9, 4,7,10-Trioxa-1,13-tridecanediamine 377087-83-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(support-bound; preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)

IT 377087-37-1P

RL: DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of peptide-containing compds. and compns. for targeting endothelial cells expressing neuropilin-1 receptor for diagnosis and therapy)

=> b wpix

FILE 'WPIX' ENTERED AT 09:34:22 ON 03 AUG 2005

COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE LAST UPDATED: 2 AUG 2005 <20050802/UP>

MOST RECENT DERWENT UPDATE: 200549 <200549/DW>

DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE, PLEASE VISIT:

Search done by Noble Jarrell

http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
<http://thomsonderwent.com/coverage/latestupdates/> <<<

>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER
GUIDES, PLEASE VISIT:
<http://thomsonderwent.com/support/userguides/> <<<

>>> NEW! FAST-ALERTING ACCESS TO NEWLY-PUBLISHED PATENT
DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX
FIRST VIEW - FILE WPIFV.
FOR FURTHER DETAILS: <http://www.thomsonderwent.com/dwpifv> <<<

>>> THE CPI AND EPI MANUAL CODES HAVE BEEN REVISED FROM UPDATE 200501.
PLEASE CHECK:
<http://thomsonderwent.com/support/dwpioref/reftools/classification/code-revision/>
FOR DETAILS. <<<
'BIX BI,ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

=> d std l13 tot

L13 ANSWER 1 OF 1 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN.S DCR-741583
DCSE 741583-1-0-0

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
CMT Gly-Thr-Lys-Pro-Pro-Arg 1 N-dipalmitoylphosphatidylethanolamine-glutaroyl
MF C70 H128 N11 O18 P

=> d all dcn l14 tot

L14 ANSWER 1 OF 1 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2003-800817 [75] WPIX
CR 2002-195523 [25]
DNC C2003-221021
TI Composition used in targeting endothelial cells e.g. tumor cells comprises
compounds containing monomers, multimers or polymers of
L-arginine-L-threonyl-L-lysyl-L-prolyl-L-prolyl.
DC A96 B04 K08
IN LINDER, K; MARINELLI, E R; NANJAPPAN, P; NUNN, A D; PILLAI, R; RAJU, N;
RAMALINGAM, K; TWEEDLE, M F; VON WRONSKI, M A
PA (LIND-I) LINDER K; (MARI-I) MARINELLI E R; (NANJ-I) NANJAPPAN P; (NUNN-I)
NUNN A D; (PILL-I) PILLAI R; (RAJU-I) RAJU N; (RAMA-I) RAMALINGAM K;
(TWEI-I) TWEEDLE M F; (VWRO-I) VON WRONSKI M A
CYC 1
PI US 2002147136 A1 20021010 (200375)* 85 A61K038-16
ADT US 2002147136 A1 CIP of US 2000-585364 20000602, US 2001-871974 20010604
PRAI US 2001-871974 20010604; US 2000-585364 20000602
IC ICM A61K038-16
ICS A61K051-08
AB US2002147136 A UPAB: 20031120
NOVELTY - Composition (A1) comprises compounds containing monomers,
multimers or polymers of L-arginine-L-threonyl-L-lysyl-L-prolyl-L-prolyl.
DETAILED DESCRIPTION - Composition (A1) comprises a compound
containing monomers, multimers or polymers of L-arginine-L-threonyl-L-
lysyl-L-prolyl-L-prolyl (TKPPR) of formula A-L-B1 (I).
A = monomer, multimer or polymer of TKPPR or its analogue that
specifically binds to NP-1 or cells that express NP-1 with avidity of at
least that of TKPPR;
L = a linker (preferably a group of formula (i));
X = NH, NR, O, S or SR;

Search done by Noble Jarrell

m = 0-2;

n = 0-4;

R = H or 1-4C alkyl (optionally substituted by at least one OH), and
B1 = a substrate.

INDEPENDENT CLAIMS are also included for:

(1) a compound of formula A-L-B1a (II) and A-L-B3 (III) for use in targeting endothelial cells, tumor cells or other cells;

(2) an ultrasound contrast agent (c1) comprising a suspension of gas filled microbubbles comprising (II);

(3) an ultrasound contrast agent (c2) comprising a suspension of gas filled microballoons comprising (III);

(4) preparation of (I) which comprises conjugating the monomer, multimer or polymer of TKPRR or its analogue with a linker to obtain a compound of formula A-L (IV), forming a covalent or non-covalent bond between (IV) and the substrate B1 or forming a covalent bond between B1 and the linker to form a conjugate B-L followed by conjugation with the monomer, and

(5) a kit for preparing a radiopharmaceutical comprising (A1).

B1a = a phospholipid group of formula (ii);

M = alkaline or alkaline earth metal cation;

R1, R2 = 12-20C linear chain optionally interrupted by CO or O, and

X2 = H, CH2CH2NH2, CH2CH(NH3+)-COO-, CH2CH(OH)CH2OH or a group of formula (iii).

ACTIVITY - Cytostatic; Antiangiogenetic.

MECHANISM OF ACTION - Vascular endothelial growth factor binding receptor transmembrane glycoprotein (NP-1) binder.

USE - Used for targeting endothelial cells, tumor cells or other cells which express NP-1, for inhibiting angiogenesis, for ultrasound imaging, staging a tumor, screening at least one targeted ultrasound contrast agent for the ability to target endothelial cells, tumor cells or other cells which express NP-1, for the therapeutic delivery in vivo of a bioactive agent and for delivering desired nucleic acids to endothelial cells, tumor cells or other cells which express NP-1 (all claimed). The composition is also useful for visualization therapy or radiotherapy of endothelial cells.

ADVANTAGE - (A1) can be used with or without a detectable moiety for any of the imaging modalities.

Dwg.0/4

FS

CPI

FA

AB; GI; DCN

MC

CPI: A12-V01; A12-V03C2; B01-D02; B03-H; B04-B01B; B04-C01A; B04-C02;
B04-C03; B04-D01; B04-J02; B05-A03B; B05-A04; B05-B01P; B05-B02C;
B05-C08; B10-A07; B10-B02J; B10-B04B; B10-C02; B10-H02B; B12-K04C1;
B14-F01D; B14-H01; K08-X; K09-B; K09-E

M1 *31* DCN: 0097-34702-T; 0097-34702-M; 0097-34702-N

M1 *32* DCN: 0097-34701-T; 0097-34701-M; 0097-34701-N

M1 *37* DCN: RA01EA-K; RA01EA-T; RA01EA-Q; RA01EA-M

M1 *38* DCN: R16461-K; R16461-T; R16461-Q; R16461-M

M1 *39* DCN: RA0120-K; RA0120-T; RA0120-Q; RA0120-M

M1 *40* DCN: RA01IK-K; RA01IK-T; RA01IK-Q; RA01IK-M

M1 *41* DCN: RA01PM-K; RA01PM-T; RA01PM-Q; RA01PM-M

M1 *42* DCN: RA00I9-K; RA00I9-T; RA00I9-Q; RA00I9-M

M1 *43* DCN: RA0121-K; RA0121-T; RA0121-Q; RA0121-M

M1 *44* DCN: RA04V6-K; RA04V6-T; RA04V6-Q; RA04V6-M

M1 *45* DCN: RA0120-K; RA0120-T; RA0120-Q; RA0120-M

M1 *46* DCN: RAAXLX-K; RAAXLX-T; RAAXLX-Q;

RAAXLX-M

M1 *47* DCN: 0097-34703-K; 0097-34703-T; 0097-34703-Q; 0097-34703-M;
0097-34703-P

M2 *01* DCN: RA04F6-K; RA04F6-T; RA04F6-Q; RA04F6-M

M2 *02* DCN: R06891-K; R06891-T; R06891-Q; R06891-M

M2 *03* DCN: R07812-K; R07812-T; R07812-Q; R07812-M

M2 *04* DCN: R09617-K; R09617-T; R09617-Q; R09617-M; R10728-K; R10728-T;
R10728-Q; R10728-M

M2 *05* DCN: R01065-K; R01065-T; R01065-Q; R01065-M

M2 *06* DCN: RA0ICL-K; RA0ICL-T; RA0ICL-Q; RA0ICL-M

M2 *07* DCN: RA11FY-K; RA11FY-T; RA11FY-Q; RA11FY-M
M2 *08* DCN: RA1AGG-K; RA1AGG-T; RA1AGG-Q; RA1AGG-M
M2 *09* DCN: RA0K4Y-K; RA0K4Y-T; RA0K4Y-Q; RA0K4Y-M
M2 *10* DCN: R00104-K; R00104-T; R00104-Q; R00104-M; R04091-K; R04091-T;
R04091-Q; R04091-M; R13229-K; R13229-T; R13229-Q; R13229-M
M2 *11* DCN: R00116-K; R00116-T; R00116-Q; R00116-M; R04750-K; R04750-T;
R04750-Q; R04750-M
M2 *12* DCN: R00114-K; R00114-T; R00114-Q; R00114-M; R04738-K; R04738-T;
R04738-Q; R04738-M
M2 *13* DCN: R00100-K; R00100-T; R00100-Q; R00100-M; R17997-K; R17997-T;
R17997-Q; R17997-M
M2 *14* DCN: R06639-K; R06639-T; R06639-Q; R06639-M
M2 *15* DCN: R00900-K; R00900-T; R00900-Q; R00900-M; R07861-K; R07861-T;
R07861-Q; R07861-M
M2 *16* DCN: R01137-K; R01137-T; R01137-Q; R01137-M; R12109-K; R12109-T;
R12109-Q; R12109-M
M2 *17* DCN: R01152-K; R01152-T; R01152-Q; R01152-M; R07021-K; R07021-T;
R07021-Q; R07021-M
M2 *18* DCN: R08480-K; R08480-T; R08480-Q; R08480-M
M2 *19* DCN: R10312-K; R10312-T; R10312-Q; R10312-M
M2 *20* DCN: R10313-K; R10313-T; R10313-Q; R10313-M
M2 *21* DCN: R16329-K; R16329-T; R16329-Q; R16329-M
M2 *22* DCN: R16328-K; R16328-T; R16328-Q; R16328-M
M2 *23* DCN: R01738-K; R01738-T; R01738-Q; R01738-M
M2 *24* DCN: R01779-K; R01779-T; R01779-Q; R01779-M
M2 *25* DCN: R03186-K; R03186-T; R03186-Q; R03186-M
M2 *26* DCN: R03134-K; R03134-T; R03134-Q; R03134-M
M2 *27* DCN: R03133-K; R03133-T; R03133-Q; R03133-M
M2 *28* DCN: RA0XPN-K; RA0XPN-T; RA0XPN-Q; RA0XPN-M
M2 *29* DCN: R18066-K; R18066-T; R18066-Q; R18066-M
M2 *30* DCN: RAAXL7-K; RAAXL7-T; RAAXL7-Q; RAAXL7-M
M5 *33* DCN: R11954-K; R11954-T; R11954-Q; R11954-M
M5 *34* DCN: R13257-K; R13257-T; R13257-Q; R13257-M
M5 *35* DCN: R00148-K; R00148-T; R00148-Q; R00148-M
M5 *36* DCN: RAAXKP-K; RAAXKP-T; RAAXKP-Q; RAAXKP-M

=> b home

FILE 'HOME' ENTERED AT 09:34:50 ON 03 AUG 2005

=>